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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK E. ADDIS

Appeal 2008-2071
Application 10/616,028
Technology Center 3600

Decided: September 16, 2008

Before WILLIAM F. PATE, III, LINDA E. HORNER, and MICHAEL W.
O'NEILL, *Administrative Patent Judges*.

O'NEILL, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Mark E. Addis (Appellant) seeks our review under 35 U.S.C. § 134 of the final rejection of claims 1-3, 5, 6, 8-10, and 28. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM.¹

THE INVENTION

The claimed invention is directed to a brush seal.

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A brush seal comprising:

a back plate;

a side plate;

a first set of bristles; and

a second set of bristles between said first set of bristles and said side plate, said second set of bristles having a length and abutting said first set of bristles at a point adjacent a joint between said back plate and said side plate and substantially along said length;

wherein said first set of bristles has a length greater than the length of said second set of bristles and said second set of bristles cooperating with said side plate to reduce windage effects on said first set of bristles.

THE PRIOR ART

The Examiner relies upon the following as evidence of unpatentability:

Flower	US 5,480,165	Jan. 2, 1996
Millener	US 5,496,045	Mar. 5, 1996

¹ Our decision will make reference to Appellant's Appeal Brief ("App. Br.," filed Oct. 19, 2006), Reply Brief ("Reply Br.," filed Mar. 16, 2007), and the Examiner's Answer ("Answer," mailed Jan. 16, 2007).

THE REJECTIONS

The following rejections are before us for review:

Claims 1-3, 5, 6, 8, 9, and 28 are rejected under 35 U.S.C. § 102(b) as being anticipated by Flower.

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Flower and Millener.

ISSUES

The issue before us is whether Flower describes, in a brush seal, a first set of bristles having a length greater than a second set of bristles where the second set of bristles is between the first set of bristles and a side plate of the brush seal. This issue turns on whether Flower is limited to its preferred embodiments shown in the drawings.

FINDINGS OF FACT

We find that the following enumerated findings of fact are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Flower describes in a brush seal a first set of bristles 19 longer than a second set of bristles 17 where the second set of bristles is between the first set of bristles and a backing plate 15. (Flower, col. 4, ll. 34-44 (see Fig. 1); col. 5, ll. 10-16 (see Fig. 3); col. 5, ll. 58-62 (see Fig. 7); and see also Fig. 8 (not described).)

2. Flower describes in a brush seal a first set of bristles 19 longer than a second set of bristles 17 where the second set of bristles is between the first set of bristles and a collar 21. (Flower, col. 5, ll. 38-42 (see Fig. 6.))
3. The Appellant admits “[i]n FIG. 6 in Flower, there is a shorter set of bristles [17] placed against the side plate [collar 21]; however, there is a spacer ring (25) positioned between the first set of bristles [19] and the second set of bristles [17].” (App. Br. 7.) As such, the Appellant admits collar 21 satisfies what one of ordinary skill in the art would consider a side plate in the brush seal art.
4. Flower describes in certain applications of the seal assembly, the relatively thin spacer ring 25 may be disposed between the sets of bristles, e.g., sets 17 and 19. (Flower, col. 3, ll. 31-33.)
5. Flower shows two sets of bristles at different lay angles. (Flower, Figures 4 and 5.)
6. In addition to teaching in a brush seal, bristles, a back plate, and a side plate, Millener also teaches a windage cover, the portion of side plate 10 adjacent to rotating shaft 4. (Millener, Fig. 2.)

PRINCIPLES OF LAW

Anticipation

It is well settled that in order for the examiner to establish a prima facie case of anticipation, each and every element of the claimed invention, arranged as required by the claim, must be found in a single prior art

reference, either expressly or under the principles of inherency. *See generally, In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997); *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677-78 (Fed. Cir. 1988); *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

Obviousness

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S.Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”) The Court in *Graham* further noted that evidence of secondary considerations “might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” 383 U.S. at 17-18.

ANALYSIS

For the reasons below, we conclude that the Appellant has not identified an error in the Examiner's rejection of claims 1-3, 5, 6, 8-10, and 28.

Anticipation

Claim 1

The Examiner finds Flower anticipates claim 1. (Answer 3.) The Appellant contends that the Examiner has misread Flower. (Reply Br. 3.) Particularly, the Appellant contends that the second set of bristles is not located between the first set of bristles and the side plate. Instead, the Appellant contends that the second set of bristles is located between the back plate 15 and the first set of bristles. (App. Br. 6-7.) We find that Flowers, in some embodiments, describes, in a brush seal, a first set of bristles longer than a second set of bristles where the second set of bristles is between the first set of bristles and a backing plate 15. (Fact 1.) However, we also find that Flowers describes, in a brush seal, a first set of bristles longer than a second set of bristles where the first set of bristles is between the second set of bristles and a collar. (Fact 2.) As admitted by the Appellant, Flower's collar 21 satisfies the side plate element in the claims. (Fact 3.) Accordingly, the term "side plate" encompasses the structure of Flower's collar. The claim requires the second set of bristles be located between the side plate and the first set of bristles and the first set of bristles have a length greater than the second set of bristles. Based on our findings and the Appellant's admission, we find Flower satisfies this limitation.

While the Appellant admits that Flower's arrangement of sets of bristles and collar as shown in Figure 3 satisfies the claimed lengths and side plate elements, the Appellant contends that Flower is not anticipatory because there is a spacer ring between the sets of bristles. (App. Br. 7.) When the Examiner responded with the "disclosure [of Flower] is not limited to only those figures [1-8]" (Answer 4) the Appellant submitted "that this argument finds no support in the existing case law (Reply Br. 2.) However, the Examiner is correct. A reference is not limited to its preferred embodiment, but must be evaluated for all of its teachings, including its teachings of non-preferred embodiments. *In re Burckel*, 592 F.2d 1175, 1179 (CCPA 1979). As we found above and as admitted by Appellant, Flower's arrangement of sets of bristles and collar satisfies the claimed lengths and side plate elements. Flower describes in certain applications of the seal assembly, the spacer ring may be disposed between the sets of bristles. (Fact 4.) Accordingly, Flower does not require the ring to be in every embodiment disclosed in Flower (note Figures 1 and 8 do not have a spacer ring). As such, Flower not being limited to its preferred embodiments shown in the drawings, Flower's description of the sets of bristles and their relationship in length and position to each other and the collar satisfy the requirements within claim 1.

Claims 2, 3, and 9

The Appellant relies on the arguments raised against the rejection of claim 1. (App. Br. 8.) Given that we find those arguments unpersuasive as to error in the rejection of claim 1, we reach the same conclusion with regard to the arguments as they apply to the rejection of claims 2, 3, and 9; that is, we find them unpersuasive as to error in the rejection.

Claim 5

The Appellant relies on the same argument that Flower's disclosure should be limited to the preferred embodiments. (App. Br. 9.) However, as stated above, we have found this argument unpersuasive because a reference is not limited to its preferred embodiments. *In re Burckel*, 592 F.2d at 1179. Further, we are not persuaded the Examiner erred with the Appellant's conclusionary statement that the Examiner finding Flower's bristles sets having the same angles can be found to meet the requirement of the sets of bristles have non-interfering lay angles is inappropriate. (Reply Br. 5.) Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of prima facie obviousness or by rebutting the prima facie case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)). A conclusionary statement that "this is inappropriate" does not show error in the Examiner's position.

Claim 6

The Appellant further argues that "there simply is no disclosure of the claimed range in Flower [with respect to the lay angle difference]." (Reply Br. 5.) Figures 4 and 5 in Flower show the two sets of bristles at different lay angles. (Fact 5.) As such, there is a difference between the lay angles. The question becomes whether Flower's drawings preclude a lay angle difference of zero as the Examiner has found (see Answer 5). Figures 4 and 5 show two different embodiments. However, those embodiments are not

exclusive. As stated above, a reference is not limited to its preferred embodiments. *In re Burckel*, 592 F.2d at 1179. Further, we find no disclosure in Flower requiring there be a difference in lay angles. Therefore, the Examiner is correct to find Flower describes a difference in lay angle of zero. A zero difference in lay angle falls within the claimed range.

Claims 8 and 28

The Appellant has made arguments with respect to claims 8 and 28 that simply state that Flower does not disclose or suggest certain claimed features and relies on the same arguments presented for claim 1. (App. Br. 9-10.) A statement that merely points out what a claim recites will not be considered an argument for separate patentability of the claim. 37 C.F.R. § 41.37(c)(1)(vii). A general allegation that the art does not teach any of the claim limitations is no more than merely pointing out the claim limitations. In addition, the Appellant relies on the argument made against the rejection of claim 1 and given that we find those arguments unpersuasive as to error in the rejection of claim 1, we reach the same conclusion with regard to the arguments as they apply to the rejection of claims 8 and 28; that is, we find them unpersuasive as to error in the rejection.

Obviousness

The Appellant argues “assuming one of ordinary skill in the art would be motivated to make this combination, Millener does not overcome the aforementioned deficiencies of Flower. For this reason, claim 10 is allowable.” (App. Br. 10.) We understand this argument to mean that the Appellant is arguing Millener does not overcome the deficiencies of Flower with respect to claim 1. (See Reply Br. 6.) Given that we find those arguments

unpersuasive as to error in the rejection of claim 1, we reach the same conclusion with regard to the arguments as they apply to the rejection of claim 10; that is, we find them unpersuasive as to error in the rejection. Moreover, we find that Millener teaches a windage cover. (Fact 6.) “[T]he combination of familiar elements according to known methods is likely to be obvious when it does not more than yield predictable results.” *KSR*, 127 S. Ct. at 1739. Thus, Flower and Millener teach a combination of familiar elements that can be put together by known methods of brush seal fabrication. The Appellant has not come forth with evidence that such a brush would product an unpredictable result. As such, we conclude the combination of elements claimed is obvious.

CONCLUSIONS OF LAW

The Appellant has not identified an error in the Examiner’s rejection of claims 1-3, 5, 6, 8, 9, and 28 as being anticipated by Flower.

The Appellant has not identified an error in the Examiner’s rejection of claim 10 as being unpatentable over Flower and Millener.

DECISION

The Examiner’s decision to reject claims 1-3, 5, 6, 8-10, and 28 is affirmed.

AFFIRMED

Appeal 2008-2071
Application 10/616,028

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